

1632
5/6/98

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 08/984903

CRF Processing Date: _____
Edited by: _____
Verified by: _____ (STIC staff)

- Changed a file from non-ASCII to ASCII
- Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- Edited a format error in the Current Application Data section, specifically:
- Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____
- Added the mandatory heading and subheadings for "Current Application Data".
- Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- Changed the spelling of a mandatory field (the headings or subheadings), specifically:
- Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
- Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
- Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- Inserted colons after headings/subheadings. Headings edited included:
- Deleted extra, invalid, headings used by an applicant, specifically:
- Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as _____
- Inserted mandatory headings, specifically:
- Corrected an obvious error in the response, specifically:
- Edited identifiers where upper case is used but lower case is required, or vice versa.
- Corrected an error in the Number of Sequences field, specifically:
- A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- Other:
- _____
- _____
- _____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

PAGE: 1

**RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900**DATE: 05/06/98
TIME: 12:12:19

INPUT SET: S25558.raw

This Raw Listing contains the General
Information Section and up to the first 5 pages.

ENTERED

1 SEQUENCE LISTING
2
3 (1) General Information:
4
5 (i) APPLICANT: d'Apice, Anthony J.F.
6 Pearse, Martin J.
7 Robins, Allan J.
8 Crawford, Robert J.
9 Rathjen, Peter D.
10
11 (ii) TITLE OF INVENTION: MATERIALS AND METHODS FOR MANAGEMENT OF
12 HYPERACUTE REJECTION IN HUMAN XENOTRANSPLANTATION
13
14 (iii) NUMBER OF SEQUENCES: 33
15
16 (iv) CORRESPONDENCE ADDRESS:
17 (A) ADDRESSEE: Fish & Richardson
18 (B) STREET: 120 South Sixth Street, Suite 2500
19 (C) CITY: Minneapolis
20 (D) STATE: MN
21 (E) COUNTRY: USA
22 (F) ZIP: 55402
23
24 (v) COMPUTER READABLE FORM:
25 (A) MEDIUM TYPE: Floppy disk
26 (B) COMPUTER: IBM PC compatible
27 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
28 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30B
29
30 (vi) CURRENT APPLICATION DATA:
31 (A) APPLICATION NUMBER:
32 (B) FILING DATE:
33 (C) CLASSIFICATION:
34
35 (vii) PRIOR APPLICATION DATA:
36 (A) APPLICATION NUMBER: US 08/378,617
37 (B) FILING DATE: 26-JAN-1995
38
39 (viii) ATTORNEY/AGENT INFORMATION:
40 (A) NAME: Ellinger, Mark S.
41 (B) REGISTRATION NUMBER: 34,812
42 (C) REFERENCE/DOCKET NUMBER: 06868/005001
43
44 (ix) TELECOMMUNICATION INFORMATION:
45 (A) TELEPHONE: (612) 335-5070
46 (B) TELEFAX: (612) 288-9696

**RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900**DATE: 05/06/98
TIME: 12:12:20**INPUT SET: S25558.raw**

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48
49 (2) INFORMATION FOR SEQ ID NO:1:
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51 (i) SEQUENCE CHARACTERISTICS:
52 (A) LENGTH: 28 base pairs
53 (B) TYPE: nucleic acid
54 (C) STRANDEDNESS: single
55 (D) TOPOLOGY: linear
56
57 (ii) MOLECULE TYPE: DNA
58
59
60
61
62 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
63
64 GTGAATTCAG CCCTGCCTCC TTCTGCAG 28
65
66 (2) INFORMATION FOR SEQ ID NO:2:
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68 (i) SEQUENCE CHARACTERISTICS:
69 (A) LENGTH: 28 base pairs
70 (B) TYPE: nucleic acid
71 (C) STRANDEDNESS: single
72 (D) TOPOLOGY: linear
73
74 (ii) MOLECULE TYPE: DNA
75
76
77
78
79 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
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81 GTGAATTCAG GAGAAAATAA TGAATGTC 28
82
83 (2) INFORMATION FOR SEQ ID NO:3:
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85 (i) SEQUENCE CHARACTERISTICS:
86 (A) LENGTH: 28 base pairs
87 (B) TYPE: nucleic acid
88 (C) STRANDEDNESS: single
89 (D) TOPOLOGY: linear
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91 (ii) MOLECULE TYPE: DNA
92
93
94
95
96 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:
97
98 GTGAATTCGG GATCTGCCTT GTACCACC 28
99

**RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900**DATE: 05/06/98
TIME: 12:12:21**INPUT SET: S25558.raw**

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103 (A) LENGTH: 28 base pairs
104 (B) TYPE: nucleic acid
105 (C) STRANDEDNESS: single
106 (D) TOPOLOGY: linear
107
108 (ii) MOLECULE TYPE: DNA
109
110
111
112
113 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:
114
115 GTGAATTCGA AATCACTGGG AATTACA 28
116
117 (2) INFORMATION FOR SEQ ID NO:5:
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119 (i) SEQUENCE CHARACTERISTICS:
120 (A) LENGTH: 28 base pairs
121 (B) TYPE: nucleic acid
122 (C) STRANDEDNESS: single
123 (D) TOPOLOGY: linear
124
125 (ii) MOLECULE TYPE: DNA
126
127
128
129
130 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:
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132 AGGAATTCAG CATGATGCGC ATGAAGAC 28
133
134 (2) INFORMATION FOR SEQ ID NO:6:
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136 (i) SEQUENCE CHARACTERISTICS:
137 (A) LENGTH: 23 base pairs
138 (B) TYPE: nucleic acid
139 (C) STRANDEDNESS: single
140 (D) TOPOLOGY: linear
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142 (ii) MOLECULE TYPE: DNA
143
144
145
146 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:
147
148 TTTGAATTCT TTTTTTTTTT TVN 23
149
150 (2) INFORMATION FOR SEQ ID NO:7:
151
152 (i) SEQUENCE CHARACTERISTICS:

**RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900**

DATE: 05/06/98
TIME: 12:12:22

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153	(A) LENGTH: 1412 base pairs	
154	(B) TYPE: nucleic acid	
155	(C) STRANDEDNESS: single	
156	(D) TOPOLOGY: linear	
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158	(ii) MOLECULE TYPE: DNA	
159		
160	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:	
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164	GGGAGAGAAC CAGAGGATGA GGAGAAAATA ATG AAT GTC AAA GGA AGA GTG GTT	114
165	Met Asn Val Lys Gly Arg Val Val	
166	1	5
167		
168	CTG TCA ATG CTG CTT GTC TCA ACT GTA ATG GTT GTG TTT TGG GAA TAC	162
169	Leu Ser Met Leu Leu Val Ser Thr Val Met Val Val Phe Trp Glu Tyr	
170	10	15
171	20	
172	ATC AAC AGC CCA GAA GGT TCT TTG TTC TGG ATA TAC CAG TCA AAA AAC	210
173	Ile Asn Ser Pro Glu Gly Ser Leu Phe Trp Ile Tyr Gln Ser Lys Asn	
174	25	30
175	35	40
176	CCA GAA GTT GGC AGC AGT GCT CAG AGG GGC TGG TGG TTT CCG AGC TGG	258
177	Pro Glu Val Gly Ser Ser Ala Gln Arg Gly Trp Trp Phe Pro Ser Trp	
178	45	50
179	55	
180	TTT AAC AAT GGG ACT CAC AGT TAC CAC GAA GAA GAA GAC GCT ATA GGC	306
181	Phe Asn Asn Gly Thr His Ser Tyr His Glu Glu Glu Asp Ala Ile Gly	
182	60	65
183	70	
184	AAC GAA AAG GAA CAA AGA AAA GAA GAC AAC AGA GGA GAG CTT CCG CTA	354
185	Asn Glu Lys Glu Gln Arg Lys Glu Asp Asn Arg Gly Glu Leu Pro Leu	
186	75	80
187	85	
188	GTG GAC TGG TTT AAT CCT GAG AAA CGC CCA GAG GTC GTG ACC ATA ACC	402
189	Val Asp Trp Phe Asn Pro Glu Lys Arg Pro Glu Val Val Thr Ile Thr	
190	90	95
191	100	
192	AGA TGG AAG GCT CCA GTG GTA TGG GAA GGC ACT TAC AAC AGA GCC GTC	450
193	Arg Trp Lys Ala Pro Val Val Trp Glu Gly Thr Tyr Asn Arg Ala Val	
194	105	110
195	115	120
196	TTA GAT AAT TAT TAT GCC AAA CAG AAA ATT ACC GTG GGC TTG ACG GTT	498
197	Leu Asp Asn Tyr Tyr Ala Lys Gln Lys Ile Thr Val Gly Leu Thr Val	
198	125	130
199	135	
200	TTT GCT GTC GGA AGA TAC ATT GAG CAT TAC TTG GAG GAG TTC TTA ATA	546
201	Phe Ala Val Gly Arg Tyr Ile Glu His Tyr Leu Glu Glu Phe Leu Ile	
202	140	145
203	150	
204	TCT GCA AAT ACA TAC TTC ATG GTT GGC CAC AAA GTC ATC TTT TAC ATC	594
205	Ser Ala Asn Thr Tyr Phe Met Val Gly His Lys Val Ile Phe Tyr Ile	

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900

DATE: 05/06/98
 TIME: 12:12:23

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209	Met Val Asp Asp Ile Ser Arg Met Pro Leu Ile Glu Leu Gly Pro Leu			
210	170	175	180	
211				
212	CGT TCC TTT AAA GTG TTT GAG ATC AAG TCC GAG AAG AGG TGG CAA GAC			690
213	Arg Ser Phe Lys Val Phe Glu Ile Lys Ser Glu Lys Arg Trp Gln Asp			
214	185	190	195	200
215				
216	ATC AGC ATG ATG CGC ATG AAG ACC ATC GGG GAG CAC ATC CTG GCC CAC			738
217	Ile Ser Met Met Arg Met Lys Thr Ile Gly Glu His Ile Leu Ala His			
218	205	210	215	
219				
220	ATC CAG CAC GAG GTG GAC TTC CTC TTC TGC ATG GAC GTG GAT CAG GTC			786
221	Ile Gln His Glu Val Asp Phe Leu Phe Cys Met Asp Val Asp Gln Val			
222	220	225	230	
223				
224	TTC CAA AAC AAC TTT GGG GTG GAG ACC CTG GGC CAG TCG GTG GCT CAG			834
225	Phe Gln Asn Asn Phe Gly Val Glu Thr Leu Gly Gln Ser Val Ala Gln			
226	235	240	245	
227				
228	CTA CAG GCC TGG TGG TAC AAG GCA CAT CCT GAC GAG TTC ACC TAC GAG			882
229	Leu Gln Ala Trp Trp Tyr Lys Ala His Pro Asp Glu Phe Thr Tyr Glu			
230	250	255	260	
231				
232	AGG CGG AAG GAG TCC GCA GCC TAC ATT CCG TTT GGC CAG GGG GAT TTT			930
233	Arg Arg Lys Glu Ser Ala Ala Tyr Ile Pro Phe Gly Gln Gly Asp Phe			
234	265	270	275	280
235				
236	TAT TAC CAC GCA GCC ATT TTT GGG GGA ACA CCC ACT CAG GTT CTA AAC			978
237	Tyr Tyr His Ala Ala Ile Phe Gly Gly Thr Pro Thr Gln Val Leu Asn			
238	285	290	295	
239				
240	ATC ACT CAG GAG TGC TTC AAG GGA ATC CTC CAG GAC AAG GAA AAT GAC			1026
241	Ile Thr Gln Glu Cys Phe Lys Gly Ile Leu Gln Asp Lys Glu Asn Asp			
242	300	305	310	
243				
244	ATA GAA GCC GAG TGG CAT GAT GAA AGC CAT CTA AAC AAG TAT TTC CTT			1074
245	Ile Glu Ala Glu Trp His Asp Glu Ser His Leu Asn Lys Tyr Phe Leu			
246	315	320	325	
247				
248	CTC AAC AAA CCC ACT AAA ATC TTA TCC CCA GAA TAC TGC TGG GAT TAT			1122
249	Leu Asn Lys Pro Thr Lys Ile Leu Ser Pro Glu Tyr Cys Trp Asp Tyr			
250	330	335	340	
251				
252	CAT ATA GGC ATG TCT GTG GAT ATT AGG ATT GTC AAG ATA GCT TGG CAG			1170
253	His Ile Gly Met Ser Val Asp Ile Arg Ile Val Lys Ile Ala Trp Gln			
254	345	350	355	360
255				
256	AAA AAA GAG TAT AAT TTG GTT AGA AAT AAC ATC T GACTTTAAAT			1214
257	Lys Lys Glu Tyr Asn Leu Val Arg Asn Asn Ile			
258	365	370		

INPUT SET: S25558.raw

***** PREVIOUSLY ERRORED SEQUENCES - EDITED *****

150 (2) INFORMATION FOR SEQ ID NO:7:

151
152 (i) SEQUENCE CHARACTERISTICS:
153 (A) LENGTH: 1412 base pairs
154 (B) TYPE: nucleic acid
155 (C) STRANDEDNESS: single
156 (D) TOPOLOGY: linear

157 (ii) MOLECULE TYPE: DNA

158 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

162 AGCCCTGCCT CCTTCTGCAG AGCAGAGCTC ACTAGAACCTT GTTCGCCTT TTACTCTGGG 60
163
164 GGGAGAGAAG CAGAGGATGA GGAGAAAATA ATG AAT GTC AAA GGA AGA GTG GTT 114
165 Met Asn Val Lys Gly Arg Val Val
166 1 5
167
168 CTG TCA ATG CTG CTT GTC TCA ACT GTA ATG GTT GTG TTT TGG GAA TAC 162
169 Leu Ser Met Leu Leu Val Ser Thr Val Met Val Val Phe Trp Glu Tyr
170 10 15 20
171
172 ATC AAC AGC CCA GAA GGT TCT TTG TTC TGG ATA TAC CAG TCA AAA AAC 210
173 Ile Asn Ser Pro Glu Gly Ser Leu Phe Trp Ile Tyr Gln Ser Lys Asn
174 25 30 35 40
175
176 CCA GAA GTT GGC AGC AGT GCT CAG AGG GGC TGG TGG TTT CCG AGC TGG 258
177 Pro Glu Val Gly Ser Ser Ala Gln Arg Gly Trp Trp Phe Pro Ser Trp
178 45 50 55
179
180 TTT AAC AAT GGG ACT CAC AGT TAC CAC GAA GAA GAA GAC GCT ATA GGC 306
181 Phe Asn Asn Gly Thr His Ser Tyr His Glu Glu Glu Asp Ala Ile Gly
182 60 65 70
183
184 AAC GAA AAG GAA CAA AGA AAA GAA GAC AAC AGA GGA GAG CTT CCG CTA 354
185 Asn Glu Lys Glu Gln Arg Lys Glu Asp Asn Arg Gly Glu Leu Pro Leu
186 75 80 85
187
188 GTG GAC TGG TTT AAT CCT GAG AAA CGC CCA GAG GTC GTG ACC ATA ACC 402
189 Val Asp Trp Phe Asn Pro Glu Lys Arg Pro Glu Val Val Thr Ile Thr
190 90 95 100
191
192 AGA TGG AAG GCT CCA GTG GTA TGG GAA GGC ACT TAC AAC AGA GCC GTC 450
193 Arg Trp Lys Ala Pro Val Val Trp Glu Gly Thr Tyr Asn Arg Ala Val
194 105 110 115 120
195
196 TTA GAT AAT TAT TAT GCC AAA CAG AAA ATT ACC GTG GGC TTG ACG GTT 498

**RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900**

DATE: 05/06/98
TIME: 12:12:26

INPUT SET: S25558.raw

197	Leu Asp Asn Tyr Tyr Ala Lys Gln Lys Ile Thr Val Gly Leu Thr Val			
198	125	130	135	
199				
200	TTT GCT GTC GGA AGA TAC ATT GAG CAT TAC TTG GAG GAG TTC TTA ATA	546		
201	Phe Ala Val Gly Arg Tyr Ile Glu His Tyr Leu Glu Glu Phe Leu Ile			
202	140	145	150	
203				
204	TCT GCA AAT ACA TAC TTC ATG GTT GGC CAC AAA GTC ATC TTT TAC ATC	594		
205	Ser Ala Asn Thr Tyr Phe Met Val Gly His Lys Val Ile Phe Tyr Ile			
206	155	160	165	
207				
208	ATG GTG GAT GAT ATC TCC AGG ATG CCT TTG ATA GAG CTG GGT CCT CTG	642		
209	Met Val Asp Asp Ile Ser Arg Met Pro Leu Ile Glu Leu Gly Pro Leu			
210	170	175	180	
211				
212	CGT TCC TTT AAA GTG TTT GAG ATC AAG TCC GAG AAG AGG TGG CAA GAC	690		
213	Arg Ser Phe Lys Val Phe Glu Ile Lys Ser Glu Lys Arg Trp Gln Asp			
214	185	190	195	200
215				
216	ATC AGC ATG ATG CGC ATG AAG ACC ATC GGG GAG CAC ATC CTG GCC CAC	738		
217	Ile Ser Met Met Arg Met Lys Thr Ile Gly Glu His Ile Leu Ala His			
218	205	210	215	
219				
220	ATC CAG CAC GAG GTG GAC TTC CTC TTC TGC ATG GAC GTG GAT CAG GTC	786		
221	Ile Gln His Glu Val Asp Phe Leu Phe Cys Met Asp Val Asp Gln Val			
222	220	225	230	
223				
224	TTC CAA AAC AAC TTT GGG GTG GAG ACC CTG GGC CAG TCG GTG GCT CAG	834		
225	Phe Gln Asn Asn Phe Gly Val Glu Thr Leu Gly Gln Ser Val Ala Gln			
226	235	240	245	
227				
228	CTA CAG GCC TGG TGG TAC AAG GCA CAT CCT GAC GAG TTC ACC TAC GAG	882		
229	Leu Gln Ala Trp Trp Tyr Lys Ala His Pro Asp Glu Phe Thr Tyr Glu			
230	250	255	260	
231				
232	AGG CGG AAG GAG TCC GCA GCC TAC ATT CCG TTT GGC CAG GGG GAT TTT	930		
233	Arg Arg Lys Glu Ser Ala Ala Tyr Ile Pro Phe Gly Gln Gly Asp Phe			
234	265	270	275	280
235				
236	TAT TAC CAC GCA GCC ATT TTT GGG GGA ACA CCC ACT CAG GTT CTA AAC	978		
237	Tyr Tyr His Ala Ala Ile Phe Gly Gly Thr Pro Thr Gln Val Leu Asn			
238	285	290	295	
239				
240	ATC ACT CAG GAG TGC TTC AAG GGA ATC CTC CAG GAC AAG GAA AAT GAC	1026		
241	Ile Thr Gln Glu Cys Phe Lys Gly Ile Leu Gln Asp Lys Glu Asn Asp			
242	300	305	310	
243				
244	ATA GAA GCC GAG TGG CAT GAT GAA AGC CAT CTA AAC AAG TAT TTC CTT	1074		
245	Ile Glu Ala Glu Trp His Asp Glu Ser His Leu Asn Lys Tyr Phe Leu			
246	315	320	325	
247				
248	CTC AAC AAA CCC ACT AAA ATC TTA TCC CCA GAA TAC TGC TGG GAT TAT	1122		
249	Leu Asn Lys Pro Thr Lys Ile Leu Ser Pro Glu Tyr Cys Trp Asp Tyr			

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900DATE: 05/06/98
TIME: 12:12:27*INPUT SET: S25558.raw*

250	330	335	340	
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252	CAT ATA GGC ATG TCT GTG GAT ATT AGG ATT GTC AAG ATA GCT TGG CAG			1170
253	His Ile Gly Met Ser Val Asp Ile Arg Ile Val Lys Ile Ala Trp Gln			
254	345	350	355	360
255				
256	AAA AAA GAG TAT AAT TTG GTT AGA AAT AAC ATC T GACTTTAAAT			1214
257	Lys Lys Glu Tyr Asn Leu Val Arg Asn Asn Ile			
258	365	370		
259				
260	TGTGCCAGCA GTTTCTGAA TTTGAAAGAG TATTACTCTG GCTACTTCCT CAGAGAAGTA			1274
261				
262	GCACCTTAATT TTAACCTTTA AAAAAATACT AACAAAATAC CAACACAGTA AGTACATATT			1334
263				
264	ATTCTTCCTT GCAACTTGAA GCCTTGTCAA ATGGGAGAAT GACTCTGTGG TAATCAGATG			1394
265				
266	TAAATTCCCA GTGATTT			1412
267				
268				

PAGE: 1

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION **US/08/984,900**

DATE: 05/06/98
TIME: 12:12:28

INPUT SET: S25558.raw

Line

Error

Original Text

PAGE: 1

**RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900**DATE: 05/06/98
TIME: 10:20:55**INPUT SET: S25558.raw**

This Raw Listing contains the General Information Section and those Sequences containing ERRORS.

1 **SEQUENCE LISTING**
2

3 (1) General Information:

4
5 (i) APPLICANT: d'Apice, Anthony J.F.
6 Pearse, Martin J.
7 Robins, Allan J.
8 Crawford, Robert J.
9 Rathjen, Peter D.10
11 (ii) TITLE OF INVENTION: MATERIALS AND METHODS FOR MANAGEMENT OF
12 HYPERACUTE REJECTION IN HUMAN XENOTRANSPLANTATION13
14 (iii) NUMBER OF SEQUENCES: 3315
16 (iv) CORRESPONDENCE ADDRESS:17 (A) ADDRESSEE: Fish & Richardson
18 (B) STREET: 120 South Sixth Street, Suite 2500
19 (C) CITY: Minneapolis
20 (D) STATE: MN
21 (E) COUNTRY: USA
22 (F) ZIP: 5540223
24 (v) COMPUTER READABLE FORM:25 (A) MEDIUM TYPE: Floppy disk
26 (B) COMPUTER: IBM PC compatible
27 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
28 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30B29
30 (vi) CURRENT APPLICATION DATA:31 (A) APPLICATION NUMBER: US 08/378,617
32 (B) FILING DATE: 26-JAN-1995
33 (C) CLASSIFICATION:

(vi) Pkck APP DATA:

34
35 (viii) ATTORNEY/AGENT INFORMATION:36 (A) NAME: Ellinger, Mark S.
37 (B) REGISTRATION NUMBER: 34,812
38 (C) REFERENCE/DOCKET NUMBER: 06868/00500139
40 (ix) TELECOMMUNICATION INFORMATION:41 (A) TELEPHONE: (612) 335-5070
42 (B) TELEFAX: (612) 288-969643
44 **ERRORRED SEQUENCES FOLLOW:***Does Not Completely
Corrected/Discrete New Seqs!*

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900

DATE: 05/06/98
 TIME: 10:20:56

INPUT SET: S25558.raw

146 (2) INFORMATION FOR SEQ ID NO:7:

147

148 (i) SEQUENCE CHARACTERISTICS:

--> 149 (A) LENGTH: 1412 base pairs
 150 (B) TYPE: nucleic acid
 151 (C) STRANDEDNESS: single
 152 (D) TOPOLOGY: linear

153

154 (ii) MOLECULE TYPE: DNA

155

156 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

157

158 AGCCCTGCCT CCTTCTGCAG AGCAGAGCTC ACTAGAACTT GTTTCGCCTT TTACTCTGGG 60

159

160 GGGAGAGAAC CAGAGGATGA GGAGAAAATA ATG AAT GTC AAA GGA AGA GTG GTT 114
 161 Met Asn Val Lys Gly Arg Val Val
 162 1 5

163

164 CTG TCA ATG CTG CTT GTC TCA ACT GTA ATG GTT GTG TTT TGG GAA TAC 162
 165 Leu Ser Met Leu Leu Val Ser Thr Val Met Val Val Phe Trp Glu Tyr
 166 10 15 20

167

168 ATC AAC AGC CCA GAA GGT TCT TTG TTC TGG ATA TAC CAG TCA AAA AAC 210
 169 Ile Asn Ser Pro Glu Gly Ser Leu Phe Trp Ile Tyr Gln Ser Lys Asn
 170 25 30 35 40

171

172 CCA GAA GTT GGC AGC AGT GCT CAG AGG GGC TGG TGG TTT CCG AGC TGG 258
 173 Pro Glu Val Gly Ser Ser Ala Gln Arg Gly Trp Trp Phe Pro Ser Trp
 174 45 50 55

175

176 TTT AAC AAT GGG ACT CAC AGT TAC CAC GAA GAA GAC GCT ATA GGC 306
 177 Phe Asn Asn Gly Thr His Ser Tyr His Glu Glu Glu Asp Ala Ile Gly
 178 60 65 70

179

180 AAC GAA AAG GAA CAA AGA AAA GAA GAC AAC AGA GGA GAG CTT CCG CTA 354
 181 Asn Glu Lys Glu Gln Arg Lys Glu Asp Asn Arg Gly Glu Leu Pro Leu
 182 75 80 85

183 Val Asp Trp Phe Asn Pro Glu Lys Arg Pro Glu Val Val Thr Ile Thr
 184 90 95 100

185

--> 186 AGA TGG AAG GCT CCA GTG GTA TGG GAA GGC ACT TAC AAC AGA GCC GTC 450
 187 Arg Trp Lys Ala Pro Val Val Trp Glu Gly Thr Tyr Asn Arg Ala Val
 188 105 110 115 120

189

190 TTA GAT AAT TAT TAT GCC AAA CAG AAA ATT ACC GTG GGC TTG ACG GTT 498
 191 Leu Asp Asn Tyr Tyr Ala Lys Gln Lys Ile Thr Val Gly Leu Thr Val
 192 125 130 135

193

194 TTT GCT GTC GGA AGA TAC ATT GAG CAT TAC TTG GAG GAG TTC TTA ATA 546
 195 Phe Ala Val Gly Arg Tyr Ile Glu His Tyr Leu Glu Glu Phe Leu Ile
 196 140 145 150

197

198 TCT GCA AAT ACA TAC TTC ATG GTT GGC CAC AAA GTC ATC TTT TAC ATC 594

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/ GTG GAC TGG TTT AA

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900

DATE: 05/06/98
 TIME: 10:20:57

INPUT SET: S25558.raw

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203	Met Val Asp Asp Ile Ser Arg Met Pro Leu Ile Glu Leu Gly Pro Leu			
204	170	175	180	
205				
206	CGT TCC TTT AAA GTG TTT GAG ATC AAG TCC GAG AAG AGG TGG CAA GAC	690		
207	Arg Ser Phe Lys Val Phe Glu Ile Lys Ser Glu Lys Arg Trp Gln Asp			
208	185	190	195	200
209				
210	ATC AGC ATG ATG CGC ATG AAG ACC ATC GGG GAG CAC ATC CTG GCC CAC	738		
211	Ile Ser Met Met Arg Met Lys Thr Ile Gly Glu His Ile Leu Ala His			
212	205	210	215	
213				
214	ATC CAG CAC GAG GTG GAC TTC CTC TTC TGC ATG GAC GTG GAT CAG GTC	786		
215	Ile Gln His Glu Val Asp Phe Leu Phe Cys Met Asp Val Asp Gln Val			
216	220	225	230	
217				
218	TTC CAA AAC AAC TTT GGG GTG GAG ACC CTG GGC CAG TCG GTG GCT CAG	834		
219	Phe Gln Asn Asn Phe Gly Val Glu Thr Leu Gly Gln Ser Val Ala Gln			
220	235	240	245	
221				
222	CTA CAG GCC TGG TGG TAC AAG GCA CAT CCT GAC GAG TTC ACC TAC GAG	882		
223	Leu Gln Ala Trp Trp Tyr Lys Ala His Pro Asp Glu Phe Thr Tyr Glu			
224	250	255	260	
225				
226	AGG CGG AAG GAG TCC GCA GCC TAC ATT CCG TTT GGC CAG GGG GAT TTT	930		
227	Arg Arg Lys Glu Ser Ala Ala Tyr Ile Pro Phe Gly Gln Gly Asp Phe			
228	265	270	275	280
229				
230	TAT TAC CAC GCA GCC ATT TTT GGG GGA ACA CCC ACT CAG GTT CTA AAC	978		
231	Tyr Tyr His Ala Ala Ile Phe Gly Gly Thr Pro Thr Gln Val Leu Asn			
232	285	290	295	
233				
234	ATC ACT CAG GAG TGC TTC AAG GGA ATC CTC CAG GAC AAG GAA AAT GAC	1026		
235	Ile Thr Gln Glu Cys Phe Lys Gly Ile Leu Gln Asp Lys Glu Asn Asp			
236	300	305	310	
237				
238	ATA GAA GCC GAG TGG CAT GAT GAA AGC CAT CTA AAC AAG TAT TTC CTT	1074		
239	Ile Glu Ala Glu Trp His Asp Glu Ser His Leu Asn Lys Tyr Phe Leu			
240	315	320	325	
241	CTC AAC AAA CCC ACT AAA ATC TTA TCC CCA GAA TAC TGC TGG GAT TAT	1122		
242	Leu Asn Lys Pro Thr Lys Ile Leu Ser Pro Glu Tyr Cys Trp Asp Tyr			
243	330	335	340	
244				
245	CAT ATA GGC ATG TCT GTG GAT ATT AGG ATT GTC AAG ATA GCT TGG CAG	1170		
246	His Ile Gly Met Ser Val Asp Ile Arg Ile Val Lys Ile Ala Trp Gln			
247	345	350	355	360
248				
249	AAA AAA GAG TAT AAT TTG GTT AGA AAT AAC ATC T GACTTTAAAT	1214		
250	Lys Lys Glu Tyr Asn Leu Val Arg Asn Asn Ile			
251	365	370		

PAGE: 4

**RAW SEQUENCE LISTING
PATENT APPLICATION US/08/984,900**

DATE: 05/06/98
TIME: 10:20:58

INPUT SET: S25558.raw

252	TGTGCCAGCA	GTTTTCTGAA	TTTGAAAGAG	TATTACTCTG	GCTACTTCCT	CAGAGAAGTA	1274
253							
254	GCACCTTAATT	TTAACCTTTA	AAAAAAATACT	AACAAAATAC	CAACACAGTA	AGTACATATT	1334
255							
256	ATTCTTCCTT	GCAACTTTGA	GCCTTGTCAA	ATGGGAGAAT	GACTCTGTGG	TAATCAGATG	1394
257							
258	TAAATTCCCA	GTGATTTC					1412
259							
260							
261							

PAGE: 1

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION **US/08/984,900**

DATE: 05/06/98
TIME: 10:20:59

INPUT SET: S25558.raw

Line	Error	Original Text
31	Wrong application Serial Number	(A) APPLICATION NUMBER: US 08/378,617
149	Entered (1412) and Calc. Seq. Length (1364) differ	(A) LENGTH: 1412 base pairs
186	# of Sequences for line conflicts w/ running total	AGA TGG AAG GCT CCA GTG GTA TGG GAA GGC A